

Making Rates

How Do They Do That Actuarial Thing?

Montana Labor-Management Advisory Council

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NCCI

WC Ratemaking 101

- **What you won't hear**
- **Where to start**
- **Where does it come from**
- **What to do with it**
- **How can we be sure**
- **Bottom line to Joe Q. Public**

Technical Actuarial Type Words

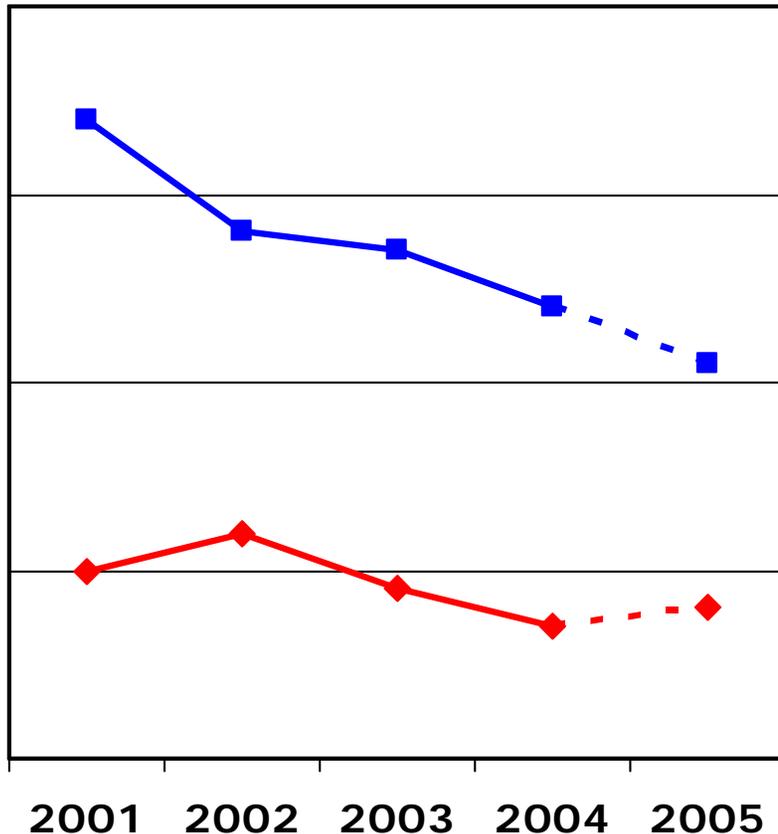
- **Tail Factors**
- **Incurred But Not Reported**
- **On-Level Factor**
- **Exponential Trend Factors**
- **18th to Ultimate Development**
- **Composite Adjustment Factor**
- **Off-Balance**

Where to start?



- Look at where the state is
- Gather new and updated data
- Objectively analyze it
- Mix in other factors
- Spread it out

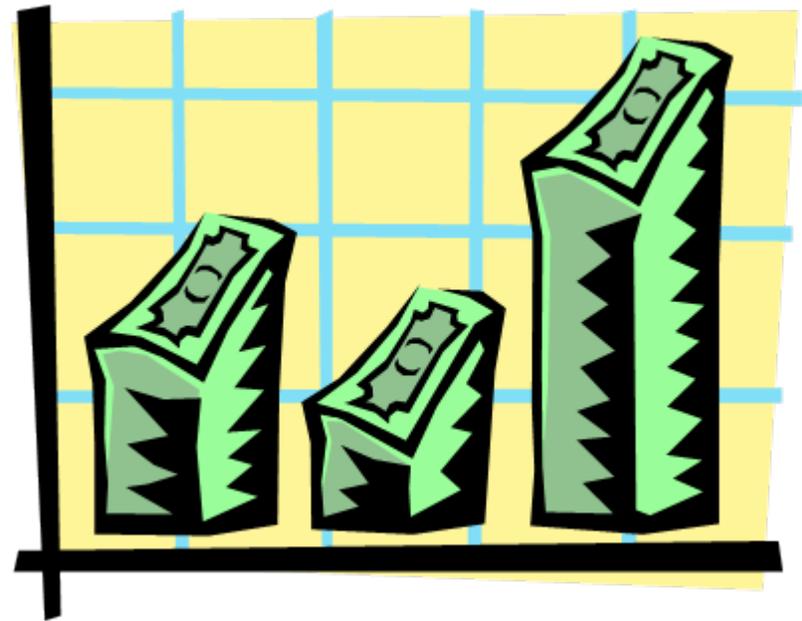
Where are we?



- What's the current status?
- Any recent:
 - System changes?
 - Benefit Changes?
 - Law Changes?
 - Other Stuff?

1ST Step: Determine Overall Rate Level

- How much premium is needed to fund the system to only pay the anticipated indemnity and medical losses?



Data...

- **Financial Data**
 - Calendar Year Data
 - Policy Year Data

Answers the 1st question:

“How much was collected?”



...and more Data



- **Loss Data**

Answers the 2nd question:

“How much did the industry pay out?”

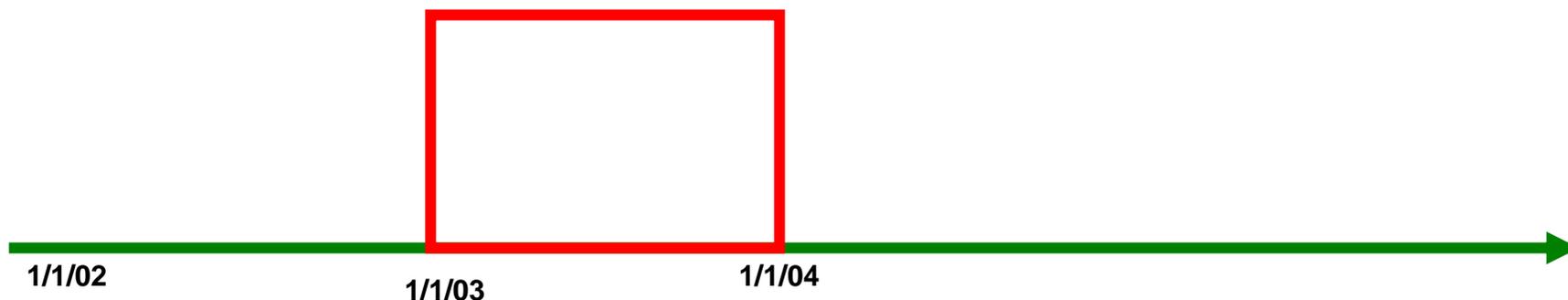
- **Type of injuries**
- **Medical costs**
- **Wage Replacement**
- **Frequency**
- **Severity**

Different Data For Different Needs



- Calendar Year Data
- Policy Year Data
- Individual Policy Data

Calendar Year 2003



Consists of all transactions reported in 2003, regardless of the years which generated them.

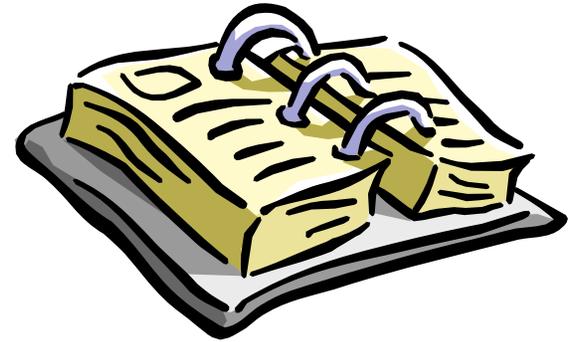
Premium in – losses paid out

Sources: NAIC, Annual Statements or AM Best

Calendar Year Data

Advantages:

- Readily available
- Fresher
- Compiled quickly
- Fixed over time
- Easily reconciled to other sources



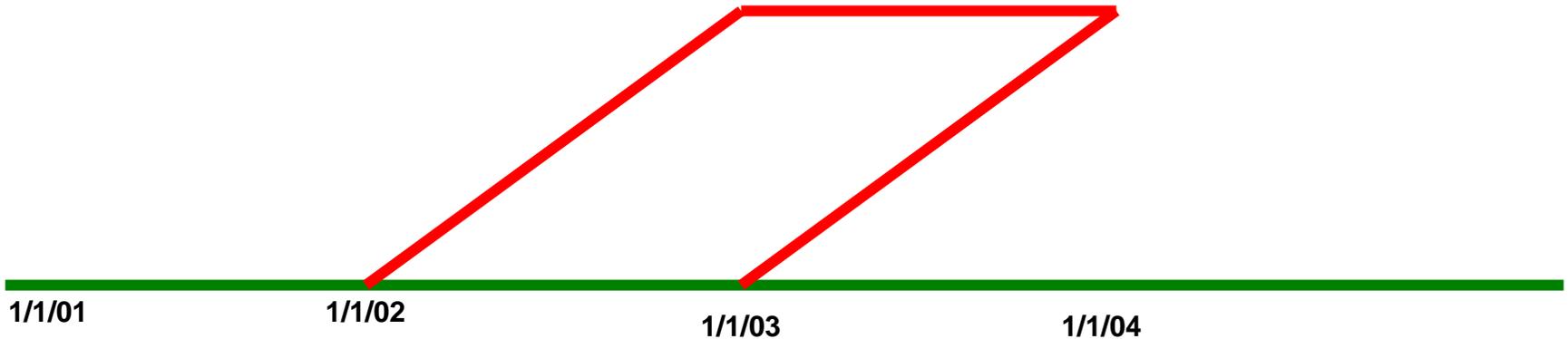
Calendar Year Data



Drawbacks

- Distorted by rapid growth or decline in market share
- Greatly impacted by prior years reserve changes in current year
- Not a good measure of profitability

Policy Year 2002



Data is organized by matching premiums and losses to policies issued during a given year, regardless of when it's reported to insurer

Policy Year Data

Advantages

- **Matches losses & premiums to the underlying policies**
- **More Mature**
- **More stable**



Policy Year Data



Drawbacks

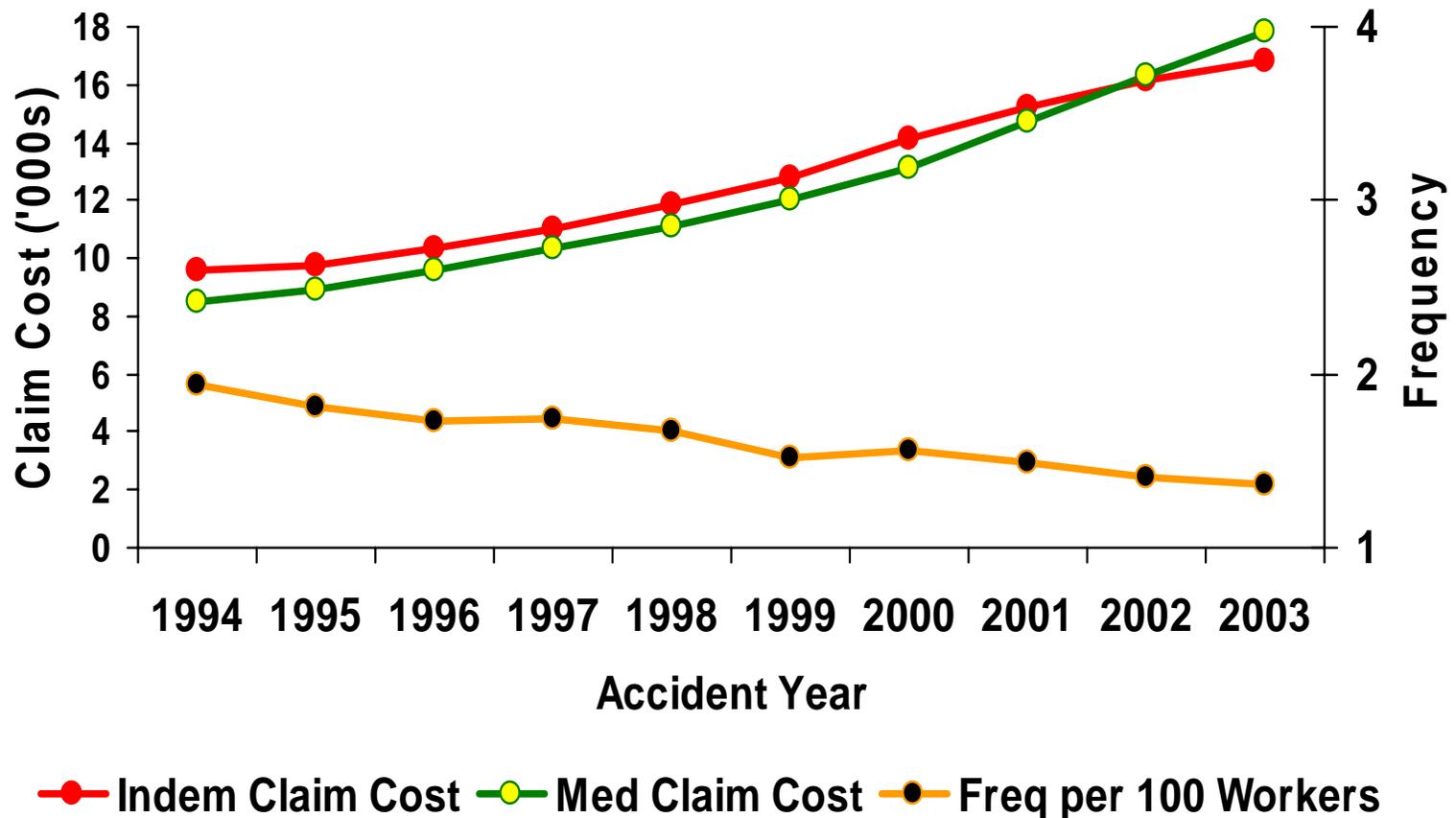
- Older
- Takes too long to finalize
- Not readily published

2nd Step: Trend

- Getting from Point **A**
 - (Where we are)
- to Point **B**
 - (Where we need to go)
- Measure the changes in the growth/decline of wages and losses

Differences indicate trend

Cost Per Claim Going Up, Number of Claims Going Down



Source: NCCI

17

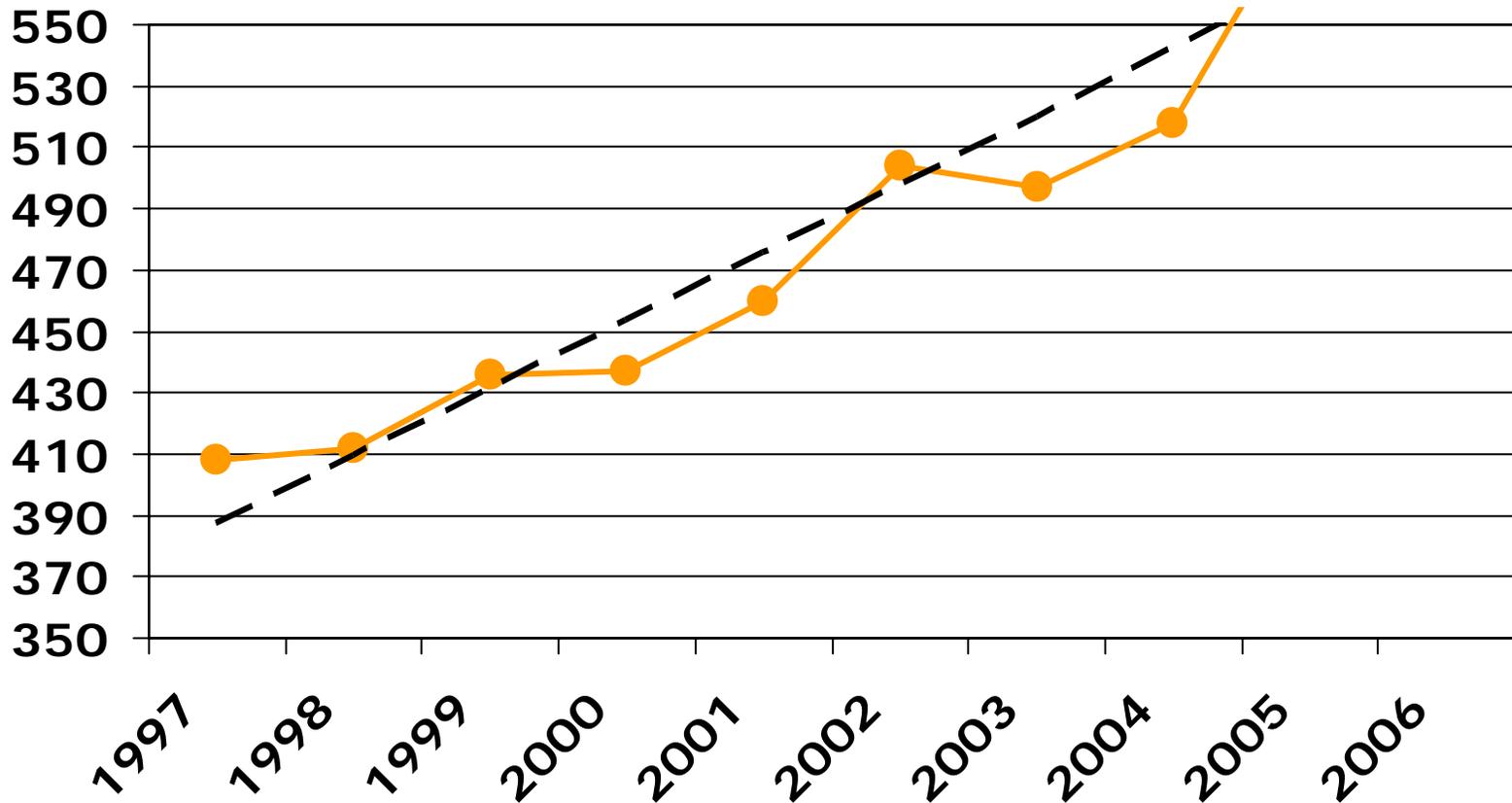
Source:

Based on data through 12/31/00.

© 2005 National Council on Compensation Insurance. Average indemnity and medical cost per lost-time claim.



Wages Are Expected To Grow

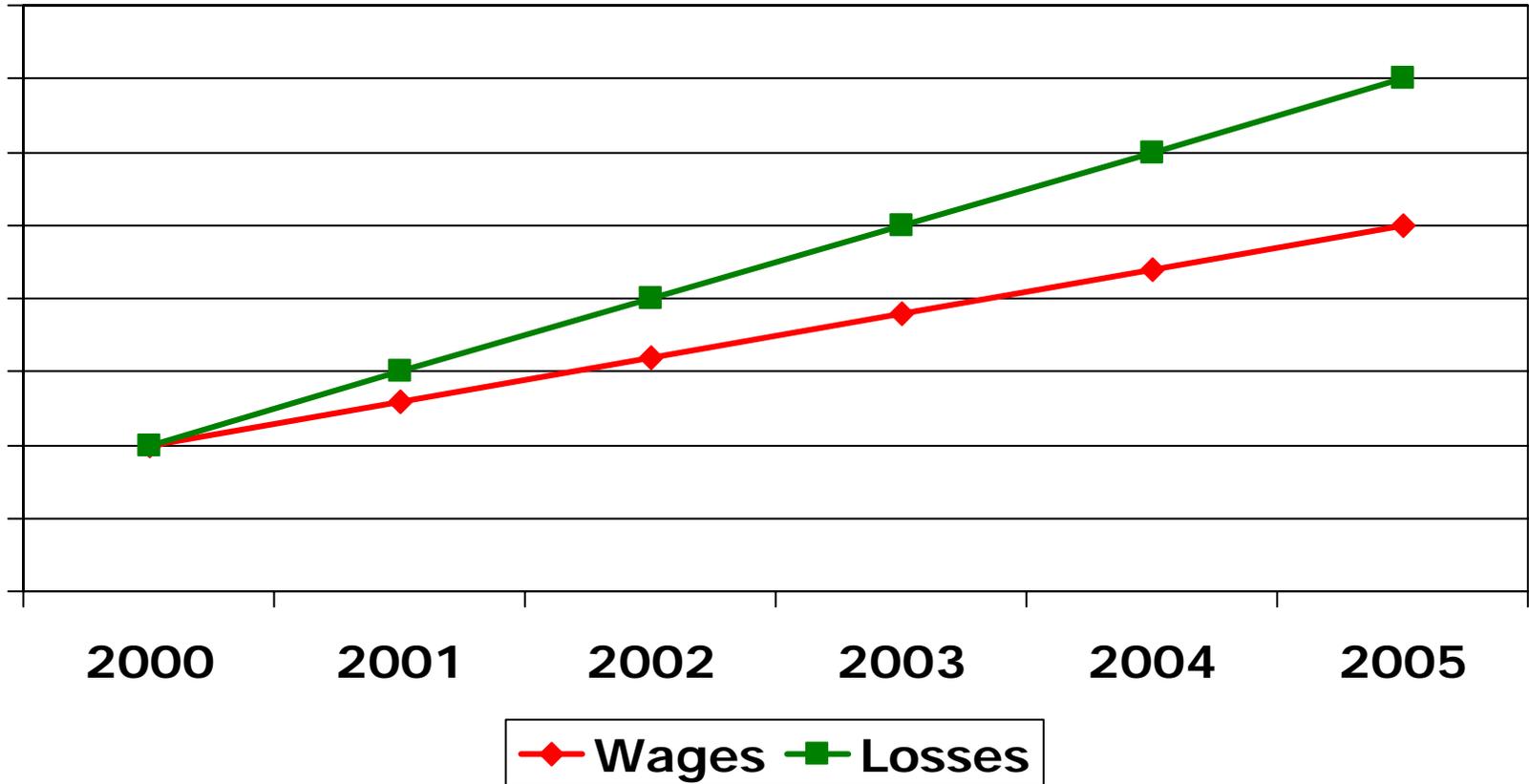


Montana Average Weekly Wage & Trend -
Source: US BLS

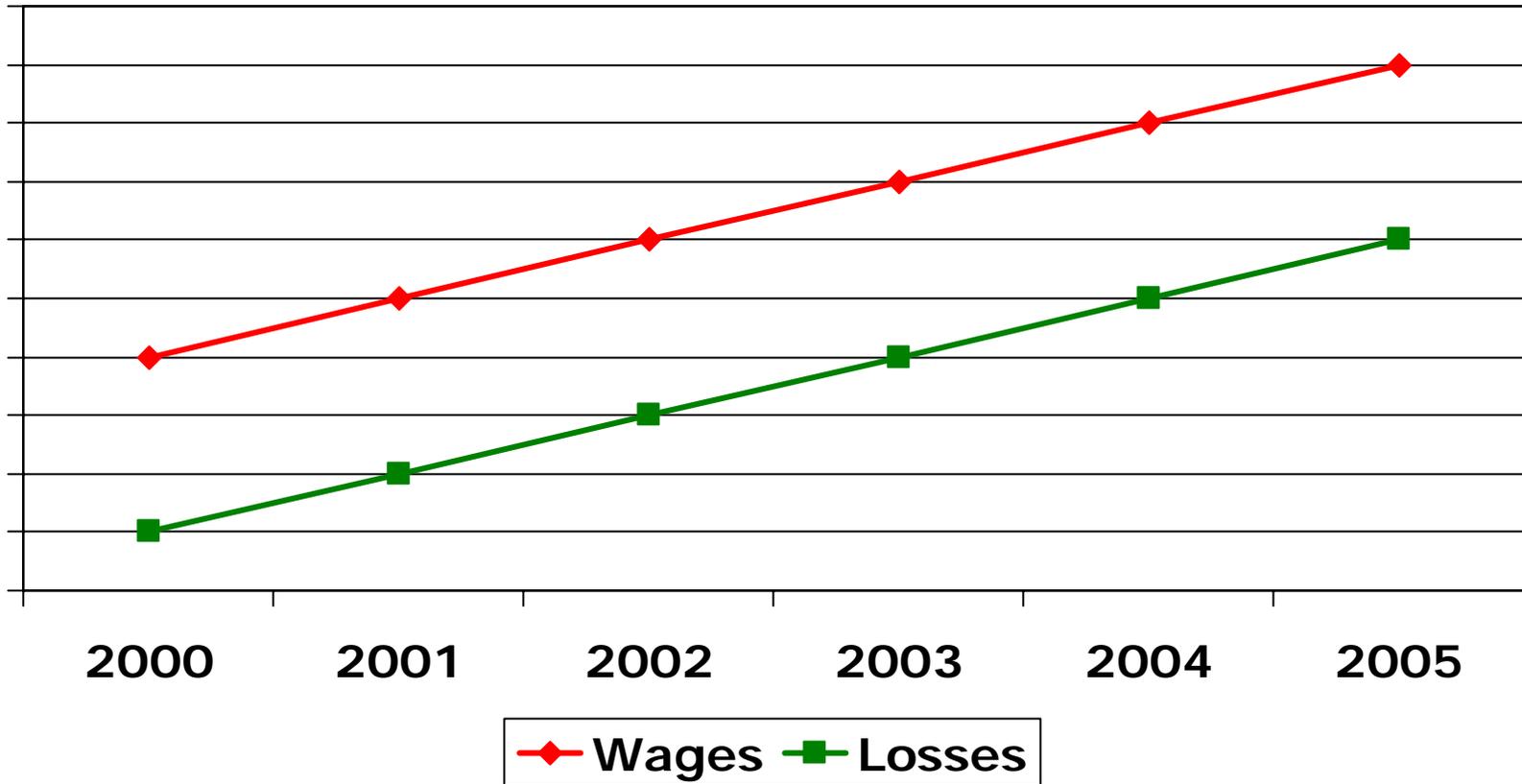
Negative Trend



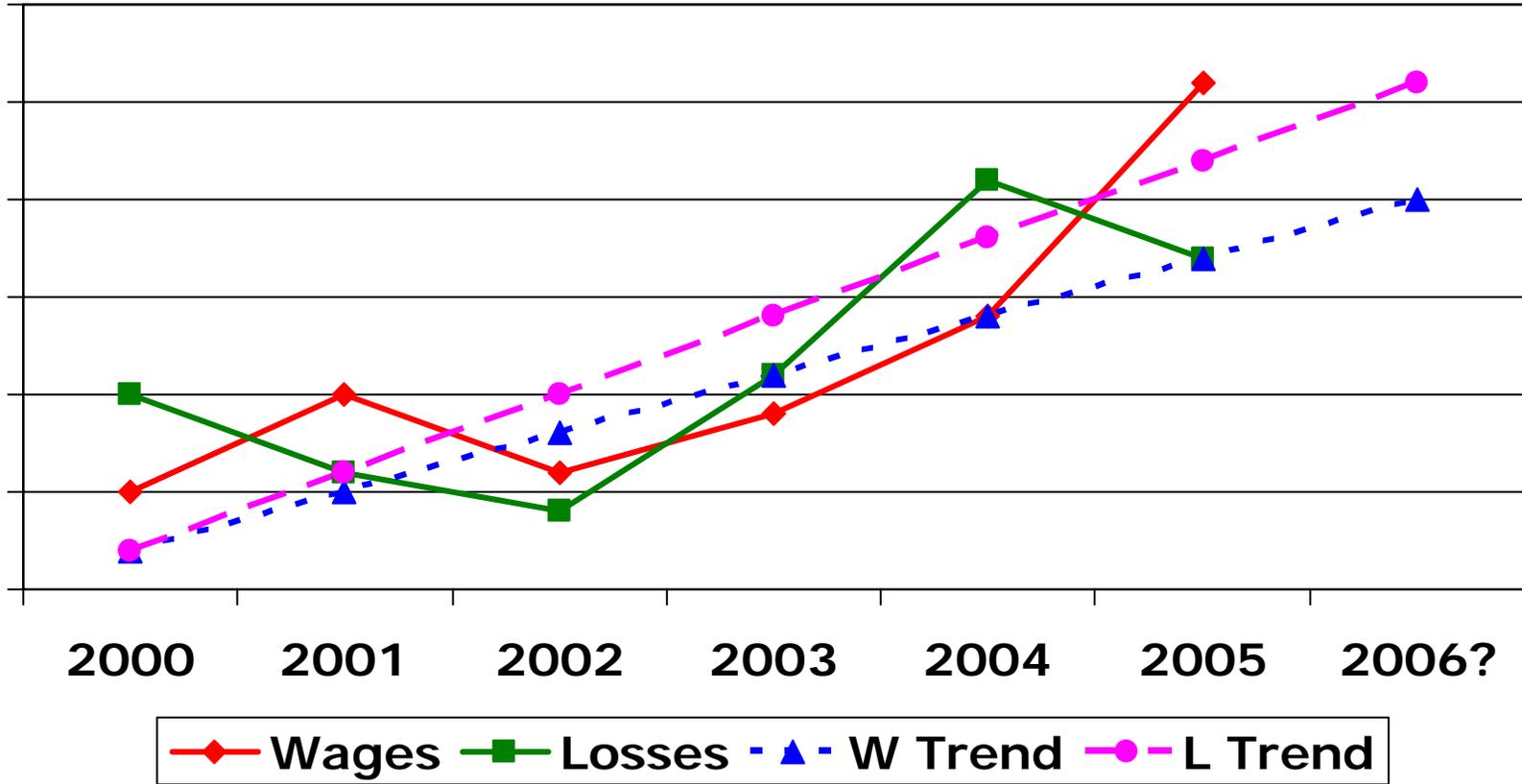
Positive Trend



Flat Trend



Real World



3rd Step: Analyze & Include Any Changes



- **Legislation**
Benefit Increases



- **Court Decisions**
Compensability



- **Regulations**
Safety Rules

Impact of changes

- **Benefit Changes** – Immediate impact on premiums by instituting higher or lower wage loss payments
- **Court Decisions** – Alter laws on compensability, coverages or benefits. Impact can be retroactive, immediate or in future
- **Regulations** – Generally more long term in nature (safety requirements) but can have immediate effect (assessments)

If we continue at the same level...

- Will things balance out?
- Will there be enough money to pay claims?
- Will there be more than needed?



4th Step: Sanity Check



Check outside sources for independent verification:

- DOL
- WCD
- OSHA
- BLS
- Carriers
- Guy on the street

5th Step: Determine Overall Premium Level

Add everything up to determine what the overall premium level needs to do:

- Up?
- Down?
- No change?



6th Step: Spread Out The Changes

Not equitable to apply rate change unilaterally to all employers

- Distribute to 5 Industry groups based on their experience
- Distribute to individual classifications based on their experience



Final Manual Rate

Full Rate

- A provision for each expense item is added by the insurer to the final loss cost to produce a full manual rate
- Carrier rates expressed as a Loss Cost Multiplier

Loss cost X LCM = Final Rate

Profit & Contingencies
Taxes, Licen & Fees
Production & General Expense
Loss Adjustment Expense
Developed and Trended Losses

Final Premium Impact

- What does this mean to the average employer?
- Are there other factors involved?
 - Growth
 - Change in exposure
 - Losses
- Bottom Line:
“How much will this cost me?”



Policyholder Pricing Programs

Programs "tailor" the final premium to better match the characteristics of each insured

- Experience rating
- Contractors Premium Credit Program
- Schedule Rating
- Premium discounts by size of policy
- Retrospective Rating
- Etc.

Dirt Diggers, Inc

- **Dirt Diggers, Inc Payroll:**

- **6217 \$100,473**
- **8810 \$ 25,716**

- **Loss Cost Rates:**

- **6217 = \$23.67**
- **8810 = \$.68**

- **Mega Mutual Insurance Company**
- **Loss Cost Multiplier = 1.25**

- **MMIC Rates:**

- **Class 6217 = \$29.59 /\$100**
- **Class 8810 = \$0.85/\$100**

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Fall In A Hole, Inc.

- **Fall in a Hole, Inc Payroll**
- **6217 \$100,473**
- **8810 \$ 25,716**

- **6217 = \$23.67**
- **8810 = \$.68**

- **Fairly Equitable Insurance Company**
- **Loss Cost Multiplier = 1.50**

- **FEIC Rates:**
- **Class 6217 = \$35.51/\$100**
- **Class 8810 = \$ 1.02/\$100**
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Fall In A Hole, Inc.

$$\begin{array}{rcl}
 6217 & \$100,473 & \times \$35.51/\$100 = \$35,678 \\
 8810 & \$25,716 & \times \$ 1.02./\$100 = \$ 262
 \end{array}$$

Manual Premium = \$35,940

Experience Mod x 1.25

Modified Premium = \$44,925

MCCPAP
Standard Premium = \$42,679

Premium Discount (8%) x .92

Estimated Annual Premium \$39,265

Base Premium = \$35,390

Actual Premium = \$39,265

DIFFERENCE = \$3,875

@ 10% Increase

Differences

- **Dirt Diggers, Inc**
 - Safety conscientious
 - controlled losses
 - better training

Provides more carrier choices, options for premium savings via lower ex-mod MCCPAP, etc.

\$23,728

vs

\$39,265

\$15,537

or

165% higher

- **Fall in a Hole, Inc**
 - Multiple losses
 - less emphasis on safety
 - spotty training
- Results in less options for coverage, higher ex mod, lower premium discount, etc.

Questions?

Comments?

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